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EXAMINER
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SALTARELLI, DOMINIC D

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/723,079

Applicant(s)

IWAMURA, RYUICHI

Examiner

Dominic D Saltarelli

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 6 is objected to because of the following informalities: Line 2 reads "communication", which should be changed to --communicate--.
2. Claim 11 is objected to because of the following informalities: Line 1 reads "An apparatus as recited in claim 11", which should be changed to --An apparatus as recited in claim 10--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 10-12, 19, 40-49, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Abraham (5,592,482).

Regarding claim 1, Abraham discloses an apparatus for controlling video and audio components distribution over a power line communications (PLC) network (fig. 1), comprising:

A server (fig. 1, distribution box 12) configured for controlling the communication of video and audio streams between media devices connected for communicating over said PLC network (col. 4, lines 47-49); and

Means for interpreting commands (fig. 1, selector 22, 24, 26, or 28), received from a user through one of said media devices and communicated to

said server, and controlling the communication of media content to said media devices and said server in response thereto (col. 5, lines 39-61).

Regarding claim 2, Abraham discloses an apparatus for controlling video and audio components distribution over a power line communications (PLC) network (fig. 1), comprising:

A server (fig. 1, distribution box 12) configured for controlling the communication of video and audio streams between media devices connected for communicating over said PLC network (col. 4, lines 47-49);

A PLC interface (fig. 1, PLVC 14, 16, 18, or 20) coupled to said server for communicating with remote media devices (fig. 1, PLVCs and corresponding displays 44, 46, 48, 50, and 52) connected over said PLC network (col. 4, lines 18-46); and

Programming associated with said server interface for interpreting command codes receiver over said PLC network and controlling the operation of said media devices connected over said PLC network in response to command codes received and interpreted by said server which were received over said PLC network (col. 5, lines 39-61).

Regarding claim 3, Abraham discloses the apparatus of claim 2, where said server operates as a media server and media devices configured for communicating with said server over said PLC network operating as clients of

said server according to a client-server model (the distribution box is a server system which delivers media content to requesting clients).

Regarding claim 4, Abraham discloses the apparatus of claim 2, wherein the apparatus further comprises a media device configured for receiving commands from said server and for transmitting media content over said PLC network to said server (use of a VCR as a video source by the server, col. 4 line 60 – col. 5 line 2, col. 5, lines 25-27, and col. 6, lines 1-9, wherein said use requires the server to send the selection and control commands sent from the user, such as play, stop, and pause, to the VCR to control it).

Regarding claim 5, Abraham discloses the apparatus of claim 4, wherein said media device is configured for responding to commands received from a remote control unit (fig. 1, remote control 53, col. 5, lines 25-39).

Regarding claim 6, Abraham discloses the apparatus of claim 5, wherein said remote control unit utilizes infrared signals to communicate with said media device (col. 5, lines 25-39).

Regarding claim 7, Abraham discloses the apparatus of claim 5, wherein said media device is configured for communicating selected commands, received from said remote control unit, to said server (selections for video sources, such

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as selecting a VCR as a video source, is routed through the media device to the server, col. 5 line 57 – col. 6 line 9).

Regarding claim 8, Abraham discloses the apparatus of claim 4, wherein said media device is a video recording unit (fig. 1, VCR 52).

Regarding claims 10 and 11, Abraham discloses the apparatus of claim 2, wherein said server is configured for receiving video and audio content from a cable connection or content playback device (video source is either cable television or a local VCR, col. 5 line 62- col. 6 line 9).

Regarding claim 12, Abraham discloses the apparatus of claim 2, and further discloses a media storage element (fig. 1, VCR 31) connected to said server for the retrieval of video and audio content for output from devices over said PLC network (VCR 31 is a selectable source of video connected to the distribution unit, col. 5, lines 25-27).

Regarding claim 19, Abraham discloses the apparatus of claim 2, wherein select remote control operating commands, which are not utilized by said media device receiving the commands from the remote control unit, are routed to a server for controlling devices operably coupled to said server (col. 5, lines 39-61,

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wherein the video source is a VCR connected to the distribution box, col. 5, lines 25-27).

Regarding claim 40, Abraham discloses an apparatus configured for being remotely controlled (fig. 1), comprising:

A media device (fig. 1, VCR 52) configured for outputting video and audio streams;

A power line communications interface (fig. 1, PLVC 20) coupled to said media device (col. 6, lines 45-56);

Means for receiving control signals (fig. 1, remote device 36) at said media device from a remote control unit (remote control 53 operates the selector section 43 of remote device 42, col. 5, lines 33-39); and

Means for communication said control signals (fig. 1, PLVC 20), received at said media device, over said PLC network for receipt by a remote media device (remote media device is distribution box 12, col. 5, lines 40-56).

Regarding claim 41, Abraham discloses the apparatus of claim 40, wherein said remote media device comprises a media server for controlling the communication of media streams over said PLC network (col. 4, lines 47-49).

Regarding claim 42, Abraham discloses the apparatus of claim 41, wherein said media device coupled to said PLC network is configured for

transmitting media content output in response to commands received from said media server (attached VCRs are utilized as a selectable local source of content, col. 4 line 60 – col. 5 line 2).

Regarding claim 43, Abraham discloses the apparatus of claim 40, wherein said media device is a video recording device (VCR).

Regarding claim 44, Abraham discloses the apparatus for claim 40, wherein said media device comprises a television set (fig. 1, TV 50 is connected to the VCR 52, col. 5, lines 57-61).

Regarding claim 45, Abraham discloses the apparatus of claim 40, wherein said means for receiving control signals comprises an infrared receiver on said media device which is configured for receiving signals from an infrared remote control device (the selector section attached to the media device received IR commands from the remote control, col. 5, lines 15-39).

Regarding claim 46, Abraham discloses the apparatus of claim 45, wherein said means for communicating selected control signals comprises a circuit configured for detecting said selected control signals being received and encoding said signals upon said PLC network for receipt by another media device connected to said PLC network (this circuit is the circuit in the selector



section which performs the operation in col. 5, lines 40-47, wherein the second media device is distribution box 12).

Regarding claim 47, Abraham discloses the apparatus of claim 40, wherein said media devices (VCRs 52 and 31 in fig. 1) are connected to one another over a PLC network (communications are transmitted over home electrical wiring 34 in fig. 1) and configured for receiving operational commands (when VCR are selected as media sources, col. 4, lines 5-17) from a media server (fig. 1, distribution box 12) also coupled to said PLC network (col. 4, lines 47-49).

Regarding claim 48, Abraham discloses an apparatus configured for being remotely controlled (fig. 1), comprising:

A media device (fig. 1, VCR 52) configured for outputting video and audio streams; and

A PLC interface (fig. 1, PLVC 20) coupled to said media device configured for transferring streaming video and audio over a PLC network for output from said media device (the PLVC both transmits and receives media streams, col. 6, lines 17-27, and would output media streams when the VCR is selected as a media source, col. 4 lines 60 - col. 5 line 2).

Regarding claim 49, Abraham discloses the apparatus of claim 48, and further discloses means for receiving operating commands over said PLC interface from other devices communicating over said PLC network (during selection of a VCR as a video source, col. 4 line 60 – col. 5 line 2, a requesting media device uploads commands to the server, col. 5, lines 40-56 which in turn will send said commands down to the VCR, col. 6, lines 1-9), wherein said operating commands comprise commands directing media output for said media device.

Regarding claim 54, Abraham discloses the apparatus of claim 48, wherein said media device is a video recording device (VCR).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Tsai (5,161,012).

Regarding claim 20, Abraham discloses the apparatus of claim 19, but fails to disclose an infrared mouse connected to said server for converting

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commands from said server into infrared commands configured for being received and interpreted by a media device having an infrared control port.

In an analogous art, Tsai teaches receiving control commands at a server and converting the commands into infrared commands via an infrared re-transmitter to be received and interpreted by a media device having an infrared control port (upstream control signals for controlling a video source received over a power line are rebroadcast via IR transmitter 112, col. 2 line 58 – col. 3 line 10), eliminating the need for any special direct wiring for sending received control signals to the media device.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include an infrared mouse (infrared re-transmitter 112) connected to said server for converting commands from said server into infrared commands configured for being received and interpreted by a media device having an infrared control port, as taught by Tsai, for the benefit of eliminating the need for any special direct wiring or other obtrusive physical connections for sending received control signals to the media device.

Regarding claim 21, Abraham and Tsai disclose the apparatus of claim 20, wherein said server is configured for sending commands over said infrared mouse (as shown above) in combination with controlling the transmission of video and audio streams from said media device (Abraham teaches the server is

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the supplier of programming content from the media device, as distribution box 12 delivers programming from VCR 31 to client systems 44-50, as shown in fig. 1, col. 5, lines 39-61).

7. Claims 9 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham.

Regarding claim 9, Abraham discloses the apparatus of claim 2, but fails to disclose means for encrypting and decrypting data communications between said server and said media devices over said PLC network.

Examiner takes official notice that it is notoriously well known to provides means for encrypting and decrypting communications between devices over networks, for enhancing the security of communications over said network.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for encrypting and decrypting data communications between said server and said media devices over said PLC network, for the benefit of enhancing the security of communications between devices over said network.

Regarding claim 53, Abraham discloses the apparatus of claim 48, but fails to disclose means for executing a plug-in-play interface for communicating operating parameters of said media device over said PLC interface.

Examiner takes official notice that it is notoriously well known in the art to include plug-in-play interfaces for communicating operating parameters of devices over a network, as plug-in-play functionality is a well known and very convenient means for automatically adding new devices to existing networks.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for executing a plug-in-play interface for communicating operating parameters of said media device over said PLC interface, as plug-in-play functionality is a well known, widely implemented, and very convenient means for automatically adding new devices to existing networks.

8. Claims 13-16, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Ostrover (6,351,596).

Regarding claim 13, Abraham discloses the apparatus of claim 12, but fails to disclose said media storage element comprises a hard disk drive.

In an analogous art, Ostrover teaches utilizing hard disk drives as storage elements for the recording and playback of video broadcast programming (col. 4, lines 35-44), for the benefit of providing pauses in live broadcasts in addition to playback of recorded material.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus of Abraham to include a hard disk drive as the media storage element, as taught by Ostrover, for the benefit of providing the pause

function to live broadcasts made possible by dynamic digital storage of programming in addition to the playback of other recorded material.

Regarding claim 14, Abraham and Ostrover disclose the apparatus of claim 13, but fail to disclose said hard disk drive is incorporated within said server.

Examiner takes official notice that it is notoriously well known in the art to incorporate hard disk drives into video servers, providing the server with a directly accessible memory for efficiently providing recorded material.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to incorporate the hard disk drive into the server, for the benefit of providing directly accessible memory, providing a low latency source of recorded programming for distribution over the network.

Regarding claim 15, Abraham and Ostrover disclose the apparatus of claim 13, wherein said hard disk drive is external to said server and coupled to said server by a communications link (Abraham teaches local media source 31 is external to the server 12 and connected by a communications link, as shown in fig. 1, col. 5, lines 25-27, wherein the local media source is a hard drive, as taught by Ostrover).

Regarding claim 16, Abraham and Ostrover disclose the apparatus of claim 15, but fail to disclose the communications link coupling said hard disk drive to said server comprises an IEEE 1394 interface.

Examiner take official notice that it is notoriously well known in the art to utilize IEEE 1394 interfaces, otherwise known as "firewire", as a communication link between devices, as IEEE 1394 provides a standardized and high speed communications medium.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham and Ostrover to include an IEEE 1394 interface, for the benefit of utilizing a standardized and high speed communications medium between the hard disk drive and the server.

Regarding claim 25, Abraham discloses the apparatus of claim 2, but fails to disclose means for live pausing of content being viewed, wherein after unpausing play the programming can be viewed without loss.

In an analogous art, Ostrover teaches utilizing personal video recorders (the commercially available ReplayTV and TiVo, col. 4, lines 35-44) which allow for the pausing of live broadcasts by using hard drives to digitally store content as it is received, so that a user may pause a live broadcast and resume watching later it without loss, as the material is constantly recorded on said hard drive.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for live

pausing of content being viewed, wherein after un-pausing play the programming can be viewed without loss, as taught by Ostrover, for the benefit of allowing users to watch live broadcasts with the same freedom and flexibility benefits of recorded programming.

Regarding claim 26, Abraham and Ostrover disclose the apparatus of claim 25, wherein said means for live pausing stores content upon a storage device for delayed playback and while paused continues to store the programming for later resumption from the paused location (these are operational characteristics of the disclosed ReplayTV and TiVo systems).

9. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Filisan (WO 99/37092).

Regarding claim 17, Abraham discloses the apparatus of claim 2, but fails to disclose means for isolating a virtual network portion of said PLC network from other virtual network portions sharing a single physical power line distribution transformer.

In an analogous art, Filisan teaches means (fig. 3, filters 15) for isolating portions of a network from other network portions (page 5, lines 9-22) that share a single source (fig. 3, mixer 3), isolating network portions so that the signals on them are only accessible by those who wish to receive them.



It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for isolating virtual network portions of the network from other portions sharing a single physical distribution transformer, as taught by Filisan, for the benefit of isolating network portions so that the signals on them are only accessible by those who wish to receive them, and block from those who do not.

Regarding claim 18, Abraham and Filisan disclose the apparatus of claim 17, wherein said means for isolating said virtual network portion comprises a blocking filter connected to the power line for isolating portions of said physical power line from one another (Filisan, page 5, lines 9-12).

10. Claims 22-24, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Manis et al. (US 2004/0006484 A1) [Manis].

Regarding claims 22, 50, and 51, Abraham discloses the apparatus of claims 2 and 48, but fails to disclose means for adjusting decoding latency between media devices connected to said PLC network to synchronize output timing.

In an analogous art, Manis teaches a means for adjusting decoding latency between media devices connected to a PLC network to synchronize output timing (paragraphs 19 and 32), ensuring the outputs of the devices are synchronized when reproducing content.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for adjusting decoding latency between media devices connected to said PLC network to synchronize output timing, as taught by Manis, for the benefit of ensuring the outputs of the audio and video media devices are synchronized when displaying an audio/visual presentations for optimal viewer enjoyment.

Regarding claim 23, Abraham and Manis disclose the apparatus of claim 22, and additionally disclose said means for adjusting decoding latency is executed by said server for controlling decoding delay within said media devices configured for connection to said PLC network (Manis, fig. 1, source 6, paragraph 19).

Regarding claims 24 and 52, Abraham and Manis disclose the apparatus of claims 22 and 51, wherein said means for adjusting decoding latency comprises increasing or decreasing the buffering of streams for devices to change the decoding delay (Manis, paragraphs 35 and 36, wherein speakers which receive data more quickly than others subsequently increase the buffering of streams in response to the timing beacon).

11. Claims 27, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Gray et al. (US 2004/0163130 A1) [Gray].

Regarding claim 27, Abraham discloses the apparatus of claim 2, but fails to disclose means for controlling access within said PLC network.

In an analogous art, Gray teaches a local video distribution over power line carrier network (paragraph 26) wherein the central server (controlling PC, paragraph 28) controls access within said PLC network (paragraph 29), enabling parental control over usage of media devices connected to the network from the central server.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for controlling access with said PLC network, as taught by Gray, for the benefit of enabling parental control features so that parents may monitor and selectively restrict access to media devices by their children.

Regarding claim 30, Abraham discloses the apparatus of claim 2, but fails to disclose means for locking the operations of a first media device for which commands have been received from a second media device, said locking preventing media devices other and said second media device from altering the operations of said first media device.

In an analogous art, Gray teaches locking the operations of a first media device for which commands have been received from a second media device (the second media device, the controlling PC, paragraph 28, enables parental control features which locks the operations of a second media device, the home

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set top boxes, paragraphs 38 and 39), said locking preventing media devices other and said second media device from altering the operations of said first media device (as said parental control feature is only available from the second media device, the PC, paragraph 39), for the benefit of providing parental control features over media devices.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus of Abraham to include means for locking the operations of a first media device for which commands have been received from a second media device, said locking preventing media devices other and said second media device from altering the operations of said first media device, as taught by Gray, for the benefit of providing parental control features over media devices which many parents desire which enables them to control the content available to their children.

Regarding claim 31, Abraham and Gray disclose the apparatus of claim 30, wherein said means for locking may be bypassed utilizing a password (Gray teaches the parental control feature is password protected, paragraph 38).

12. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham and Gray as applied to claim 27 above, and further in view of Ellis (US 2004/0103434 A1).

Regarding claim 28, Abraham and Gray disclose the apparatus of claim 27, but fail to disclose parental controls are established for limiting content access by password.

In an analogous art, Ellis teaches enabling parental controls for limiting content access by password (PIN unlocks restricted programming, paragraph 72), providing conventional means for enforcing parental controls.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham and Gray to include parental controls are established for limiting content access by password, as taught by Ellis, for the benefit of providing a very convenient, conventional, and straightforward means for enforcing parental controls.

Regarding claim 29, Ellis additionally discloses establishing multiple levels of content limits (parental controls that are based upon rating, paragraph 72), allowing for a fine granularity in controlling access to content on a media device.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham, Gray, and Ellis to includes establishing multiple levels of content limits, as taught by Ellis, for the benefit of allowing for a fine granularity in controlling access to content by parents on a media device.

13. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Gerszberg et al. (US 2002/0012353 A1) [Gerszberg].

Regarding claims 32 and 33, Abraham discloses the apparatus of claim 2, but fails to disclose means for controlling and prioritizing the portion of said bandwidth to be utilized by a given media device configured for communication over said PLC network with said server.

In an analogous art, Gerszberg teaches a home network system (fig. 1, customer premises equipment 10 and 22) wherein the amount of bandwidth made available to each of the media devices is controlled and prioritized by a central server (fig. 1, ISD 22, paragraph 60), efficiently utilizing the available bandwidth over the network.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for controlling and prioritizing the portion of said bandwidth to be utilized by a given media device configured for communication over a network with said server, as taught by Gerszberg, for the benefit of efficiently utilizing the limited available bandwidth over the PLC network.

14. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Na (5,296,931).

Regarding claims 34 and 35, Abraham discloses the apparatus of claim 2, but fails to disclose means for communicating multiple video and audio streams

to a given media device from said server and configured for displaying picture in picture.

In an analogous art, Na teaches receiving plural audio-visual streams at a given media device from a common source which are configured for display using picture in picture (col. 3, lines 38-62 and col. 4 line 66 – col. 5 line 2) enabling a user to view two channels at once.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include means for communicating multiple video and audio streams to a given media device from said server and configured for displaying picture in picture, as taught by Na, as the media device is simply configured to possess two PLVCs (Abraham, fig. 1) for receiving two channels at once (equivalent to the two tuners 2 and 6, taught by Na), for the benefit of enabling a user to view two channels at once, which assists in finding new content while maintaining the display of the original channel (enhanced channel surfing).

15. Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abraham in view of Bullock et al. (6,246,868) [Bullock].

Regarding claim 36, Abraham discloses the apparatus of claim 2, but fails to disclose an AC adapter configured for powering an electronic device unable to operate directly from AC line power.

In an analogous art, Bullock teaches an apparatus which utilizes AC adapters configured for powering electronic devices which are unable to operate directly from AC line power (extension units 102 operate to allow telephone equipment to operate using AC lines, col. 3, lines 5-34), for the benefit of providing dynamic telephone service in locations where little or no availability exists for dedicated telephone wires (col. 1, lines 12-15 and col. 4, lines 2-9).

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Abraham to include an AC adapter configured for powering an electronic device unable to operate directly from AC line power, as taught by Bullock, for the benefit of providing dynamic telephone service in homes and other locations which use AC power line wiring but where little or no availability exists for dedicated telephone wires.

Regarding claim 37, Abraham and Bullock disclose the apparatus of claim 36, wherein said AC adapter is configured for communicating data between said electronic device and devices coupled to the AC power line (Bullock teaches the adapter also handles computer modem communications, col. 4, lines 10-16), wherein said AC power line is to be utilized as a power communications network (Bullock, col. 2 line 57 – col. 3 line 4).



Regarding claims 38 and 39, Abraham and Bullock disclose the apparatus of claim 37, wherein said electronic device unable to operate directly from AC line power is a portable device (telephones are portable devices).

16. Claims 55-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hung et al. (US 2004/0232768 A1) [Hung] in view of Cho (US 2004/0087214 A1).

Regarding claim 55, Hung discloses an apparatus for powering electronic devices from a network (fig. 5), comprising:

A housing (fig. 5, housing 140);

An electrical interface (fig. 5, line 154);

A power supply (fig. 5, power supply 44) within said housing configured for converting available power to a format suitable for powering an electronics device through said electrical interface (paragraph 22); and

A communications interface (fig. 5, network block 150) within said housing configured for communicating data over said electrical interface between said apparatus and other devices which communicate with one another over the communications network (paragraph 22).

Hung fails to disclose the communications network is a power line communications network.

In an analogous art, Cho teaches utilizing a power line communications network as a network for connecting devices (fig. 5, paragraph 21), taking

advantage of the high availability of power outlets for establishing network access.

It would have been obvious at the time to a person of ordinary skill in the art to modify the apparatus disclosed by Hung to include utilizing a power line communications network, as taught by Cho, for the benefit of utilizing the existing AC power line wiring within all modern residential and commercial buildings to establish a high speed network, such as being promoted, for example, by the HomePlug Alliance.

Regarding claim 56, Hung and Cho disclose the apparatus of claim 55, wherein said suitable format comprises regulating allowable voltage, current, and supply ripple (Hung, paragraph 20), wherein regulating supply ripple is an inherent feature of all AC/DC power converters, which is what the apparatus is given the combination of Hung and Cho (Cho teaches the network that supplies data and power is an AC power line in paragraph 21, and the power conversion taught by Hung is to DC power, fig. 5, voltage feed 154, thus the apparatus is an AC/DC converter).

Regarding claim 57, Hung and Cho disclose the apparatus of claim 55, wherein said housing is configured as a receptacle for physically receiving a portion of said electronics device (Hung teaches the apparatus housing provides

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physical connections with power line 154 and data interface bus 152, which are physically part of the electronics device, shown in fig. 5 and paragraph 22).

Regarding claim 58, Hung and Cho disclose the apparatus of claim 55, wherein said PLC interface is configured for communicating control data and media streams to and from said electronics device (the interface taught by Hung handles all network data, and is thus configured for communicating control data and media streams when the network data is comprised of such).

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Edson (6,526,581) who teaches home networking of media device over a power line communications network.

18. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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